

# Weekly Report

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## Research

### Mobile record data

This week I searched for several papers on the project.

- **Urban Planning** The mobile records on each cell indicates social behaviors and city dynamics of the corresponding region. In section 3.1 of [1], the authors discussed about the urban computing for urban planning, including their two projects on transportation network analysis and functional region discovery. As far as our mobile record data is concerned, it can be used to describe the (temporal) city dynamics and social behaviors of each cell region.
- **Visual Query** [2] presented a visual query system for taxi data. For the cells, the querying function is necessary for accessing flows on the cells. However, if the cells are modeled as graphs, it is applicable to use graph mining algorithms to find more patterns but not only statistical values.

## Project

### Visualizing History Data

Guan Huihua and Li Ze has joined discussion of this project. Our first plan is to 1) find some existing web/mobile apps about history 2) search for papers about visualizing history data.

### Plan for Next Week

- As Prof. Tung has sent me the feedback of the VAST 2014 reviews, The next week I will begin to revise the paper.
- Continue searching for papers on urban computing, especially on urban regions.

## References

- [1] Y. ZHENG, L. CAPRA, O. WOLFSON, and H. YANG, “Urban Computing: Concepts, Methodologies, and Applications,” *ACM Transactions on Intelligent Systems and Technology*, 2014.

- [2] N. Ferreira, J. Poco, H. T. Vo, J. Freire, and C. T. Silva, “Visual Exploration of Big Spatio-Temporal Urban Data: A Study of New York City Taxi Trips,” *IEEE Trans Visual Comput Graphics*, vol. 19, no. 12, pp. 2149–2158, 2013.